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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,064	10/06/2000	Gordon Ian Rowlandson	39199-9511-00	2853

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EXAMINER

BUI, KIM T

ART UNIT	PAPER NUMBER
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3626

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/684,064

Applicant(s)

ROWLANDSON, GORDON IAN

Examiner

Kim T. Bui

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Notice to Applicant.

1. This communication is in response to the amendment filed 07/06/2004. The Interview Summary of the Applicant's Representative has been entered and acknowledged. Claims 1-31 are pending. Claim 10 is amended.

Specification

2. The abstract of the disclosure is objected to because the abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. Correction is required. See MPEP § 608.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 7,24,30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention for the reasons set forth in the previous Office Action, dated 05/06/2004, and is incorporated herein.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6, 8-12, 14-17, 19-21, 23-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mardirossian (6011991) in view of Selvester et al. (6230048).

(A) Claims 1-6, 8, 9, 25-31 have not been amended, and are rejected for the same reasons set forth in the previous Office Action, dated 05/06/2004, and is incorporated herein.

(B) Claim 10 is amended to recite "to display the interpretation and the correlated physiological data records". The claim is rejected for substantially the same reasons given in the previous Office Action dated 05/06/2004. Further reasons are given herein below:

Mardirossian teaches an the interpretation and correlation of physiological data and a display output device coupled to the processor, the library of physiological records and the comparator (i.e. correlation). See Mardirossian, Fig. 2. The output device is indirectly coupled to the acquisition device. See Mardirossian, Fig. 1. In addition, Selvester teaches static and/ or motion display for displaying interpretation, predictive interpretation, interpretation at different times T1, T2, interpretation with alarm signal, interpretation with control signal... etc... It would have been obvious to one having ordinary skill in the art at the time of the invention to include pictorial display system of Selvester et al. into Mardirossian with the motivation of providing a better representation output display with high degree of configuration and other accuracy of certain selected heart conditions. Selvester et al, col. 1, lines 19-25, col. 3, lines 60-65.

(C) Claim 11,12,14-17, 19-21, 23, 24 have not been amended, the claims are rejected for the same reasons set forth in the previous Office Action, dated 05/06/2004, and is incorporated herein, in view of the above rejection of claim 10.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mardirossian (6011991) in view of Selvester et al. (6230048) as applied to claim 1 above, and further in view of Cairnes (6139494).

(A) Claim 7 has not been amended, the claim is rejected for the same reasons set forth in the previous Office Action, dated 05/06/2004, and is incorporated herein.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mardirossian (6011991) in view of Selvester et al. (6230048) as applied to claim 1 above, and further in view of Bardy (6203495).

(A) Claim 18 has not been amended, the claim is rejected for the same reasons set forth in the previous Office Action, dated 05/06/2004, and is incorporated herein.

9. Claims 13,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mardirossian (6011991) in view of Selvester et al. (6230048) as applied to claim 1 above, and further in view of Albert et al. (6264614).

(A) Claim 13, 22 have not been amended, the claims are rejected for the same reasons set forth in the previous Office Action, dated 05/06/2004, and is incorporated herein.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

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unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1-31 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6665559 for substantially the same reasons given in the previous Office Action dated 05/06/2004 and is incorporated herein. Further reasons are given below.

Response to Arguments

12. Applicant's arguments filed 07/06/2004 have been fully considered but they are not persuasive. Applicant's arguments will be addressed herein below:

(A) On page 8-10, Applicant argues the *prima facie* case of obviousness. In response, the Examiner respectfully submits that obviousness is determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Hedges*, 783 F.2d 1038, 1039, 228 USPQ 685,686 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785,788 (Fed. Cir.1984); and *In re Rinehart*, 531 F.2d 1048, 1052, 189 USPQ 143,147 (CCPA 1976).

Using this standard, the Examiner respectfully submits that she has at least satisfied the burden of presenting a *prima facie* case of obviousness, since she has

presented evidence of corresponding claim elements in the prior art and has expressly articulated the combinations and the motivations for combinations that fairly suggest Applicant's claimed invention (see the Office Action dated 05/06/2004). The Examiner respectfully notes that each and every claimed limitations are addressed by select portions of the respective reference(s) which specifically support that particular motivation and/or an explanation based on the logic and scientific reasoning of one ordinarily skilled in the art at the time of the invention that support a holding of obviousness. As such, it is respectfully submitted that explanation based on the logic and scientific reasoning of one ordinarily skilled in the art at the time of the invention that support a holding of obviousness has been adequately provided by the motivations and reasons indicated by the Examiner. Furthermore, it is respectfully contended that there is no requirement that the motivation to make modifications must be expressly articulated within the references themselves. References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures, *In re Bozek*, 163 USPQ 545 (CCPA 1969).

The Applicant argues that Mardirossian does not teach "interpreting the physiological data based on a predetermined set of criteria to generate an interpretation", and that the terms "interpreting' and interpretation" must be given their plain meaning, such as to give or to provide the meaning of; explain; explicate; etc.... according to Webster's Encyclopedic Unabridged Dictionary of English Language, 998 (1996).

In response, it is the Examiner's position that Applicant argues no specific meaning of the term "interpreting/interpretation", except the standard definition. As such, the term "interpreting/interpretation" should be given its "broadest reasonable

interpretation". Webster's Ninth New Collegiate Dictionary principle copyright 1983 defines "interpret" as "to explain or to tell the meaning: present in understandable terms" and "interpretation" as "the act or the result of interpreting: explanation". See attached copy of the definition. The "interpreting/interpretation" term argued by the Applicant is clearly disclosed in Mardirossian as explained by the Examiner during the interview and specifically pointed to col. 3, lines 44-47, which indicates "a data acquisition device receives the signals representative of the physiological activity generated in the monitored brain, and transforms the signals into pattern or curve corresponding to the monitored brain activity". Transforms the monitored brain signals in to an understandable forms (i.e., pattern or curve) disclosed by Mardirossian clearly reads on the term "interpret/interpretation" recited by the Applicant.

On page 10 of the Remarks, Applicant argues "real time decision support". It is noted that there is no recitation in the body of the claims to support the "real time decision support". Furthermore, Applicant argues Selvester et al. does not display the correlated physiological data record. In response to Applicant's piecemeal analysis, one can not show non-obviousness by attacking references individually where, as here, the rejections are based on the combination of the references. See *In Re Keller*, 642 F.2d 413,208 USPQ 871 (CCPA 1981); *In re Merck&Co.*, 800 F.2d 1091,231 USPQ 375 (Fed. Cir 1986). It is noted that Mardirossian teaches the interpretation and the correlated physiological data (e.g. brain or heart signal, Mardirossian, col. 5, line 24), and Selvester teaches the physiological static or motion display wherein interpretation, predictive interpretation, interpretation at different times T1, T2, etc., can be presented as discussed in the previous Office Action, dated 05/06/2004 and is incorporated herein.

Also on page 10 of the Remarks, Applicant argues 1) the motivation to combine Mardirossian and Selvester et al., and 2) the references teach away from being combined because a) the same system can not be used to analyze both brain and heart data, and b) Selvester teaches acquired heart signal and Mardirossian teaches acquired brain signals. In response, the Examiner disagrees because 1) the motivation for combining “ It would have been obvious to one having ordinary skill in the art at the time of the invention to include pictorial display system of Selvester et al. into Mardirossian with the motivation of providing a better representation output display with high degree of configuration and other accuracy of certain selected heart conditions. Selvester et al, col. 1, lines 19-25, col. 3, lines 60-65” is clearly stated in the rejection of claims 1,10 in the previous Office Action, dated 05/06/2004 and is incorporated herein, and 2) the references are not teach away from being combined because a) they are both directed to physiological interpretation system. As such, it is readily apparent that a person of ordinary skill in the art of physiological analysis is going to look for the display of the physiological interpretation system disclosed by Selvester et al to improve the physiological interpretation system disclosed by Mardirossian and b) Mardirossian 's system is not limited to brain signals as alleged by the Applicant, but includes other measurements from different types of tissue such as EEG. See Mardirossian, col. 5, lines 23-25.

(B) On pages 11-15 of the Remarks, Applicant argues that Mardirossian fails to teach the limitations of claim 2, 12, 27. Examiner disagrees. Regarding the expert (e.g. neurologist, cardiologist) argued by the Applicant, it is noted that the claims do not recite

the expert (e.g. neurologist, cardiologist). Claims 2, 12, 27 recite "the expert location" and this is clearly disclosed in Mardirossian by the provision of the remote computer which includes display and programmable neural network to further analyzing the interpretation of the physiological signal being transmitted by the use of a carrier signal. See various cited passages in Mardirossian in the previous Office Action dated 05/06/2004, including, for example, col. 3, lines 44-50, col. 3, line 65 to col. 4, line 9, col. 7, lines 5-10, Figs 1, 2. In addition, Selvester et al teaches the communication link, the display, and the combination of both computer and trained cardiologist on various passages including col. 10, lines 47-54, col. 15, lines 1-9, col. 3, lines 15-30, and Fig. 3 which clearly discloses the Mesne Communication, the processor and the display.

With respect to claim 10, Applicant argues that Mardirossian does not include "interpretation module". As discussed above, the term "interpret/interpretation" is broad and should be given its "broadest reasonable interpretation". The "interpreting/interpretation" term argued by the Applicant is clearly disclosed in Mardirossian as explained by the Examiner during the interview and specifically pointed to col. 3, lines 44-47, which indicates "a data acquisition device receives the signals representative of the physiological activity generated in the monitored brain, and transforms the signals into pattern or curve corresponding to the monitored brain activity". Transforms the monitored brain signals into an understandable form (i.e., pattern or curve) disclosed by Mardirossian clearly reads on the term "interpret/interpretation". As such, Mardirossian teaches the interpretation module for transforming/explaining the monitored physiological signal and the correlation module

for comparing the interpretation with the physiological records in the library. See the rejection of claim 10 in the previous Office Action dated 05/06/2004, and incorporated herein. Regarding the output coupled to the acquisition device to display interpretation and correlated data, Mardirossian teaches the output display device directly coupled to the processor, the library and the comparator and indirectly coupled to the acquisition device. See Fig. 2 and Fig. 1 of Mardirossian. In addition, Selvester teaches static and/or motion display for displaying interpretation, predictive interpretation, interpretation at different times T1, T2, etc....

With respect to claim 25, the "interpreting/interpretation" is disclosed in Mardirossian as discussed above. The motivation for combining "It would have been obvious to one having ordinary skill in the art at the time of the invention to include pictorial display system of Selvester et al. into Mardirossian with the motivation of providing a better representation output display with high degree of configuration and other accuracy of certain selected heart conditions. (Selvester et al, col. 1, lines 19-25, col. 3, lines 60-65)" is clearly stated in the rejection of claim 25 in the previous Office Action, dated 05/06/2004 and is incorporated herein

(C) On pages 15-17 of the Remarks, Applicant argues the rejections of claims 7, 18, 13, 22.

With respect to claim 7, Applicant argues that there is no motivation to combine Mardirossian, Selvester et al and Cairnes and that Mardirossian and Selvester et al do not teach the library of education. In response to the Applicant's piecemeal analysis, one can not show non-obviousness by attacking references individually where, as here,

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the rejections are based on the combination of the references. See *In Re Keller*, 642 F.2d 413,208 USPQ 871 (CCPA 1981); *In re Merck&Co.*, 800 F.2d 1091,231 USPQ 375 (Fed. Cir 1986). Mardirossian and Selvester do not teach the library of education, but this limitation is disclosed in Cairnes, and the motivation for combining " It would have been obvious to one having ordinary skill in the art at the time of the invention to include a library of educational material with the motivation of improving the patient's understanding on therapies and healthcare issues and therefore facilitating the wellness and preventive care system which serves to prolong life, reduce sickness, and lower the cost for operating hospital and clinic. See col. 12, lines 11-16, lines 35-40 of Cairnes." is clearly stated in the rejection of claim 7 in the previous Office Action, dated 05/06/2004, and is incorporated herein.

With respect to claims 18,13,22, the motivations " It would have been obvious to one having ordinary skill in the art at the time of the invention to include a server with the motivation of increasing the capacity of the storage device to network level, thereby expanding the application to world wide system. See Bardy, col. 7, lines 1-15.", and "It would have been obvious to one having ordinary skill in the art at the time of the invention to include web site or porter with the motivation of facilitating the operation of the system by providing the ability to access the Internet to browse information and download application programs. See Albert, col. 10, lines 45-65", are clearly stated in the rejections of claims 18, 13, 22 in the previous Office Action, dated 05/06/2004 and is incorporated herein.

(D) With respect to the arguments regarding the obviousness type double patenting rejection, " the act of displaying the interpretation and correlated physiological data records " in claims 1, 25 and "the output device coupled to the acquisition device to display the interpretation and the correlated physiological data records" in the amended claim 10 are suggested in claims 1-17 of Rowlandson. It is noted the display of claim 9 is functionally connected to the acquisition unit. Rowlandson, claim 9. Furthermore, the display of Rowlandson displays the textual report, the probability of cardiovascular risk value, or indicator of either major, intermediate or minor risk, that are the direct functions of the interpretation and the correlation of physiological records. See the interpretation module, and the processor for performing correlation (i.e. serial comparison) in claims 1-17, particularly claims 9,10 of Rowlandson. For the above reasons, the obviousness-type double patenting rejections of 1-31 are valid and should be maintained.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. "Automated Real Time Interpretation Of Brainwaves" (US2004/0077967A1).

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

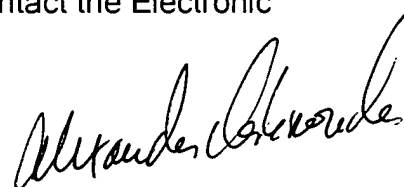
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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim T. Bui whose telephone number is 703-305-5874. The examiner can normally be reached on Monday-Friday from 8:30A.M. to 5:00P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on 703-305-9588. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ALEXANDER KALINOWSKI
PRIMARY EXAMINER

KTB
10/27/04.
KTB